| Index of Claims |
|-----------------|
|-----------------|



Application/Control No.

09/418,647

Examiner

Mark A. Mais

Applicant(s)/Patent under Reexamination

BYLSMA ET AL.

Art Unit

2616

| √ | Rejected |
|---|----------|
| _ | Allowed  |

| _ | (Through numeral)<br>Cancelled |
|---|--------------------------------|
| ÷ | Restricted                     |

| N | Non-Elected  |
|---|--------------|
| ı | Interference |

| A | Appeal   |
|---|----------|
| 0 | Objected |

| Cla                                    | im                                                                                          |                                                  |                                                  |                | _                                                | 704-                                             |                                                  |                                                  |                                                  | _        |
|----------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------------------------------|----------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|----------|
| Cla                                    |                                                                                             | Date                                             |                                                  |                |                                                  |                                                  |                                                  |                                                  |                                                  | -        |
| Final                                  | Original                                                                                    | 12/12/06                                         | 9/19/07                                          |                |                                                  |                                                  |                                                  |                                                  |                                                  |          |
| 1                                      | 1<br>2<br>3<br>4<br>5<br>6                                                                  | 7 7 7 7 7 7 7 7 7 7                              | #                                                |                |                                                  |                                                  |                                                  |                                                  |                                                  |          |
| 2                                      | 2                                                                                           | V                                                | =                                                |                |                                                  |                                                  |                                                  |                                                  |                                                  |          |
| 3                                      | 3                                                                                           | 1                                                | =                                                |                |                                                  |                                                  |                                                  |                                                  |                                                  |          |
| 2<br>3<br>4<br>5                       | 4                                                                                           | 1                                                | =                                                |                |                                                  |                                                  |                                                  |                                                  |                                                  |          |
| 5                                      | 5                                                                                           | j                                                | Ī                                                |                | _                                                |                                                  |                                                  |                                                  |                                                  | П        |
| 6                                      | -6                                                                                          | Ì                                                | =                                                | -              |                                                  | $\vdash$                                         |                                                  |                                                  | _                                                | $\vdash$ |
| 6<br>7                                 | 7                                                                                           | j                                                | =                                                | $\vdash$       | -                                                | -                                                | _                                                | _                                                |                                                  |          |
| 8                                      | 8                                                                                           | j                                                | =                                                | -              | -                                                |                                                  |                                                  |                                                  |                                                  |          |
| 9                                      | a                                                                                           | J                                                | =                                                | ┝              | $\vdash$                                         |                                                  | -                                                | -                                                |                                                  | $\dashv$ |
| 10                                     | 10                                                                                          | j                                                | =                                                | -              | -                                                | _                                                | H                                                | -                                                |                                                  | $\neg$   |
| 11                                     | 11                                                                                          | 1                                                | <del>                                     </del> | H              | H                                                |                                                  |                                                  |                                                  |                                                  | $\dashv$ |
| 12                                     | 12                                                                                          | 1                                                | <del>-</del>                                     | -              | -                                                |                                                  | H                                                |                                                  | H                                                | $\vdash$ |
| 12                                     | 12                                                                                          | <del>  `</del>                                   | +                                                | <del> </del> — | H                                                | <del></del>                                      | -                                                |                                                  |                                                  | $\vdash$ |
| 11<br>12<br>13<br>14<br>15<br>16<br>17 | 9<br>10<br>11<br>12<br>13<br>14<br>15<br>16<br>17<br>18<br>19<br>20<br>21<br>22<br>23<br>24 | ᆖ                                                | ⊨                                                | ├              | -                                                |                                                  | $\vdash$                                         |                                                  |                                                  | $\vdash$ |
| 15                                     | 15                                                                                          | -<br>1                                           | <del>ا</del>                                     | <del> </del>   | -                                                | $\vdash$                                         | H                                                | $\vdash$                                         |                                                  | $\vdash$ |
| 10                                     | 10                                                                                          | 1                                                | ۱Ē                                               | $\vdash$       | <del>                                     </del> | -                                                | -                                                | $\vdash$                                         | $\vdash$                                         | Н        |
| 10                                     | 17                                                                                          |                                                  | =                                                | <u> </u>       |                                                  | Ŀ۰                                               | Н                                                | <u> </u>                                         | $\vdash$                                         | Н        |
| 17                                     | 17                                                                                          | 1                                                | ╚                                                | ļ              |                                                  |                                                  |                                                  |                                                  | -                                                | $\vdash$ |
| 18                                     | 18                                                                                          |                                                  | Ξ                                                | ┝              | <u> </u>                                         |                                                  | _                                                |                                                  |                                                  | $\dashv$ |
| 19                                     | 19                                                                                          | 1                                                | =                                                | _              | <u> </u>                                         |                                                  | _                                                |                                                  |                                                  | -        |
| 20<br>21                               | 20                                                                                          | =                                                | =                                                |                |                                                  |                                                  | <u> </u>                                         |                                                  |                                                  | Ш        |
| 21                                     | 21                                                                                          | =                                                | =                                                |                | L.                                               | _                                                | L                                                |                                                  |                                                  | Щ        |
| 22                                     | 22                                                                                          | 1                                                | Ξ                                                |                |                                                  |                                                  | <u> </u>                                         |                                                  |                                                  |          |
|                                        | 23                                                                                          |                                                  |                                                  |                |                                                  |                                                  |                                                  |                                                  |                                                  | Ш        |
|                                        | 24                                                                                          | _                                                |                                                  | _              |                                                  |                                                  |                                                  |                                                  |                                                  | Ш        |
|                                        | 25                                                                                          |                                                  |                                                  | _              |                                                  |                                                  |                                                  |                                                  |                                                  |          |
|                                        | 26<br>27                                                                                    |                                                  |                                                  |                |                                                  |                                                  |                                                  |                                                  |                                                  | Ш        |
|                                        | 27                                                                                          |                                                  |                                                  |                |                                                  |                                                  |                                                  |                                                  |                                                  |          |
|                                        | 28                                                                                          |                                                  |                                                  |                |                                                  |                                                  |                                                  |                                                  |                                                  |          |
|                                        | 29                                                                                          |                                                  |                                                  |                |                                                  |                                                  |                                                  |                                                  |                                                  |          |
|                                        | 30                                                                                          |                                                  |                                                  |                | П                                                |                                                  |                                                  |                                                  |                                                  |          |
|                                        | 31                                                                                          |                                                  |                                                  |                |                                                  |                                                  |                                                  |                                                  |                                                  |          |
| $\Gamma$                               | 31<br>32<br>33                                                                              |                                                  |                                                  |                |                                                  |                                                  |                                                  |                                                  |                                                  |          |
|                                        | 33                                                                                          |                                                  |                                                  |                |                                                  |                                                  |                                                  |                                                  |                                                  |          |
|                                        | 34                                                                                          |                                                  |                                                  |                |                                                  |                                                  |                                                  |                                                  |                                                  |          |
|                                        | 34<br>35                                                                                    | Π                                                |                                                  |                | Г                                                | Г                                                |                                                  |                                                  |                                                  |          |
|                                        | 36                                                                                          | Π                                                | 1                                                |                | 1                                                | Ι                                                | П                                                |                                                  |                                                  | М        |
|                                        | 37                                                                                          | Π                                                |                                                  | Г              | Π                                                | Г                                                |                                                  |                                                  | Г                                                | П        |
|                                        | 38                                                                                          |                                                  |                                                  |                |                                                  |                                                  |                                                  |                                                  |                                                  |          |
|                                        | 39                                                                                          | T                                                |                                                  |                | <del>                                     </del> | Г                                                |                                                  | $\vdash$                                         | <del>                                     </del> | М        |
| $\vdash$                               | 40                                                                                          | Г                                                | П                                                |                |                                                  |                                                  | <del> </del>                                     | <del>                                     </del> | $\vdash$                                         | М        |
|                                        | 41                                                                                          |                                                  |                                                  |                | <u> </u>                                         |                                                  |                                                  |                                                  | <del>                                     </del> | $\vdash$ |
| <b> </b>                               | 42                                                                                          | $\vdash$                                         | <u> </u>                                         | <u> </u>       | <u> </u>                                         |                                                  | Ι                                                | <u> </u>                                         | Т                                                | Н        |
| <del></del>                            | 43                                                                                          | $\vdash$                                         |                                                  |                | $\vdash$                                         |                                                  | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | Н        |
|                                        | 44                                                                                          | ├                                                | -                                                | -              | <del> </del>                                     | -                                                | <del>                                     </del> | ┢                                                | $\vdash$                                         | Н        |
| <b></b>                                | 45                                                                                          | <del>                                     </del> | -                                                | -              | -                                                | <del>                                     </del> |                                                  | $\vdash$                                         |                                                  | H        |
| $\vdash$                               | 46                                                                                          | $\vdash$                                         | $\vdash$                                         | +              | <del>                                     </del> | <del> </del>                                     | ├                                                | ├                                                | $\vdash$                                         | $\vdash$ |
|                                        | 47                                                                                          | $\vdash$                                         | $\vdash$                                         | $\vdash$       | $\vdash$                                         | ├                                                | $\vdash$                                         | <del>                                     </del> | -                                                |          |
| <del></del>                            | 48                                                                                          | ├                                                | -                                                | ⊢              | $\vdash$                                         |                                                  | ╁                                                | <del> </del>                                     |                                                  | $\vdash$ |
| <del></del>                            |                                                                                             | $\vdash$                                         | ├                                                | <del> </del>   | $\vdash$                                         |                                                  | $\vdash$                                         | <del> </del>                                     |                                                  | $\vdash$ |
| <u> </u>                               | 49                                                                                          |                                                  |                                                  | $\vdash$       | -                                                | -                                                | -                                                | $\vdash$                                         | $\vdash$                                         | $\vdash$ |
| I                                      | 50                                                                                          |                                                  | L                                                | 1              | L                                                | l                                                | 1                                                |                                                  | i                                                | 1        |

| Cla      | im             |          |               |          |   | ate      | ,            |                                              |              |          |
|----------|----------------|----------|---------------|----------|---|----------|--------------|----------------------------------------------|--------------|----------|
|          |                |          |               |          |   |          |              |                                              | 1            |          |
| Final    | Original       |          |               |          |   |          |              |                                              |              |          |
|          |                |          |               |          |   |          |              |                                              |              |          |
|          | 51<br>52<br>53 |          |               |          |   |          |              | _                                            |              |          |
|          | 52             |          |               |          |   |          |              |                                              |              |          |
|          | 53             |          |               |          |   |          |              |                                              |              |          |
|          | 54             |          |               |          |   |          |              |                                              |              |          |
|          | 54<br>55       |          |               |          |   |          |              |                                              |              |          |
|          | 56             |          |               |          |   |          |              |                                              |              |          |
|          | 57<br>58       |          |               |          |   |          |              |                                              |              |          |
|          | 58             |          |               |          |   |          |              |                                              |              |          |
|          | 59             |          |               |          |   |          |              |                                              |              |          |
|          | 60             |          |               |          |   |          |              |                                              |              |          |
|          | 61             |          |               |          |   |          |              |                                              |              |          |
|          | 62             |          |               |          |   |          |              |                                              |              |          |
|          | 63             |          |               |          |   |          |              |                                              |              |          |
|          | 64             |          |               |          |   |          |              |                                              |              |          |
|          | 65             |          |               |          |   |          |              |                                              |              |          |
|          | 66             |          |               |          |   |          |              |                                              |              |          |
|          | 67             |          |               |          |   |          |              |                                              |              |          |
|          | 68             |          |               |          |   |          |              |                                              |              |          |
|          | 69             |          |               |          |   |          |              |                                              |              |          |
|          | 70             |          |               |          |   |          |              |                                              |              |          |
|          | 71<br>72<br>73 |          |               |          |   |          |              |                                              |              |          |
|          | 72             |          |               |          |   |          |              |                                              |              |          |
|          | 73             |          |               |          |   |          |              |                                              |              |          |
|          | 74<br>75       |          |               |          |   |          |              |                                              |              |          |
|          | 75             |          |               |          |   |          |              |                                              |              |          |
|          | 76             |          |               |          |   |          |              |                                              |              |          |
|          | 77             |          |               |          |   |          |              |                                              |              |          |
|          | 78             |          |               |          |   |          |              |                                              |              |          |
|          | 79             |          |               |          |   |          |              |                                              |              |          |
|          | 80             |          |               |          |   | _        |              |                                              |              |          |
|          | 81             |          |               |          |   | Ш        |              |                                              |              |          |
| <u> </u> | 82             |          |               |          |   |          |              |                                              |              |          |
| <u> </u> | 83             | Ш        | Щ.            | Щ        |   | <u> </u> | Ш            |                                              | Ш            |          |
| L        | 84             | Ш        | Щ             | Щ.       |   | <u> </u> |              | L.                                           |              |          |
|          | 85             | Ш        | L             |          |   |          | Щ.           |                                              |              |          |
|          | 86             | <u> </u> | Щ             | <u> </u> | _ | <u> </u> |              |                                              | L            |          |
|          | 87             | Щ        | $\sqsubseteq$ | L        | _ | <u> </u> | _            |                                              | Ш            |          |
| <u> </u> | 88             |          |               | <u> </u> | _ | $\vdash$ | _            |                                              |              |          |
| <u> </u> | 89             | Ш        |               | <u> </u> |   | $\sqcup$ | _            |                                              | ļ            | <u> </u> |
|          | 90             | Щ        | Щ             | <u> </u> |   | $\vdash$ | $oxed{oxed}$ |                                              | $\vdash$     | _        |
| <u> </u> | 91             |          |               | <u> </u> | _ | <u> </u> |              |                                              | <u> </u>     | _        |
| <u>.</u> | 92             |          | <b></b>       | <u> </u> |   | <u> </u> | ļ            |                                              | <u> </u>     |          |
|          | 93             |          |               | _        |   | $\vdash$ |              |                                              | $\vdash$     | _        |
| <u> </u> | 94             | L-       | $\vdash$      | <u> </u> | ļ | <u> </u> | ļ            | <u>.                                    </u> | ļ            |          |
| <u> </u> | 95             |          | $\vdash$      | $\vdash$ | _ | <b>—</b> | $\vdash$     | _                                            | $\vdash$     | _        |
| <u> </u> | 96             |          | Ш             | <u> </u> | _ | <u> </u> | $\vdash$     | _                                            | $\vdash$     | _        |
|          | 97             | <u> </u> | H             | <u> </u> | - | ļ        | H            | -                                            | $\vdash$     | _        |
|          | 98             | -        | <b> </b>      |          | - | ├        | <u> </u>     | <u> </u>                                     | <del> </del> | _        |
| -        | 99<br>100      | $\vdash$ | H             | ├-       |   | ├        |              |                                              | <del> </del> | -        |
| l l      | i IUU          | 1 1      | 1             | ı        | i | ı        | 1            | 1                                            |              | ı        |

| Cla      |                          |                                                  |                                                  |                                                  | Date                                             | •                                                |                                                  |                                                  |                                                  |                 |
|----------|--------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|-----------------|
|          |                          |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                 |
| क्र      | Original                 |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  | 1                                                |                 |
| Final    | īġi                      |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                 |
| _        | Ō                        |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                 |
|          |                          |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  | _                                                | -                                                | $\dashv$        |
|          | 101<br>102               | _                                                |                                                  | <del> </del>                                     |                                                  |                                                  | -                                                |                                                  |                                                  | $\dashv$        |
|          | 102                      |                                                  |                                                  | -                                                | _                                                | _                                                | _                                                |                                                  |                                                  |                 |
|          | 103                      | _                                                |                                                  | <u> </u>                                         |                                                  |                                                  |                                                  |                                                  |                                                  | _               |
|          | 103<br>104<br>105        |                                                  | _                                                | <u> </u>                                         | _                                                | _                                                |                                                  |                                                  |                                                  |                 |
|          | 105                      |                                                  |                                                  | _                                                |                                                  |                                                  |                                                  |                                                  |                                                  | Ц               |
|          | 106                      |                                                  | _                                                |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  | _               |
|          | 107                      |                                                  |                                                  |                                                  |                                                  | _                                                |                                                  |                                                  |                                                  | _               |
|          | 106<br>107<br>108        |                                                  |                                                  |                                                  |                                                  | L                                                |                                                  |                                                  |                                                  |                 |
|          | 1100                     |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                 |
|          | 110                      |                                                  |                                                  |                                                  | _                                                |                                                  |                                                  |                                                  |                                                  |                 |
|          | 110<br>111<br>112<br>113 | _                                                |                                                  | <u></u>                                          | L                                                |                                                  |                                                  | L.                                               |                                                  |                 |
|          | 112                      |                                                  |                                                  |                                                  |                                                  |                                                  | $oxedsymbol{oxed}$                               |                                                  |                                                  |                 |
|          | 113                      |                                                  |                                                  |                                                  |                                                  | ,                                                |                                                  |                                                  |                                                  |                 |
|          | 114<br>115               |                                                  |                                                  | L                                                | L                                                |                                                  |                                                  |                                                  |                                                  |                 |
|          | 115                      |                                                  |                                                  |                                                  | L                                                |                                                  |                                                  |                                                  |                                                  |                 |
|          | 116                      |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                 |
|          | 117                      |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                 |
|          | 118<br>119<br>120<br>121 |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                 |
|          | 119                      |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                 |
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|          | 122<br>123<br>124        |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                 |
|          | 123                      |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                 |
|          | 124                      |                                                  |                                                  |                                                  | $\Box$                                           |                                                  |                                                  |                                                  |                                                  |                 |
|          | 125<br>126<br>127        | Г                                                |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                 |
|          | 126                      |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                                                  |                 |
|          | 127                      | Г                                                |                                                  |                                                  | _                                                |                                                  | $\vdash$                                         |                                                  |                                                  |                 |
|          | 128                      | $\vdash$                                         | -                                                |                                                  | _                                                | $\vdash$                                         | $\vdash$                                         |                                                  |                                                  |                 |
| -        | 129                      | $\vdash$                                         |                                                  |                                                  | -                                                | <b></b>                                          | $\vdash$                                         |                                                  |                                                  | Н               |
|          | 128<br>129<br>130        | $\vdash$                                         | _                                                | <del>                                     </del> |                                                  | -                                                | ┢                                                |                                                  |                                                  | H               |
|          | 131                      | $\vdash$                                         |                                                  |                                                  |                                                  | Ι                                                | $\vdash$                                         | $\vdash$                                         |                                                  | $\vdash \vdash$ |
|          | 131<br>132               | $\vdash$                                         |                                                  | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | <u> </u>                                         | -                                                | -                                                | Н               |
|          | 133                      | <del>                                     </del> | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         |                                                  | $\vdash$                                         |                                                  | $\vdash$                                         | $\vdash$        |
| <b></b>  | 133<br>134               | $\vdash$                                         | $\vdash$                                         | <del>                                     </del> | <del>                                     </del> | <del> </del>                                     |                                                  | <u> </u>                                         | Н                                                | Н               |
|          | 135                      | $\vdash$                                         |                                                  | <del>                                     </del> |                                                  | <del>                                     </del> | <del>                                     </del> | <del>                                     </del> | $\vdash$                                         | Н               |
|          | 136                      | _                                                | $\vdash$                                         |                                                  | <del> </del>                                     | <del>                                     </del> | <del>                                     </del> |                                                  |                                                  | Н               |
|          | 136<br>137               | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | Н                                                |                                                  | <del>                                     </del> | $\vdash$                                         | $\vdash \vdash$ |
|          | 138                      |                                                  | <del>                                     </del> | $\vdash$                                         |                                                  | ┰                                                | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$        |
|          | 139                      |                                                  | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | I                                                |                                                  | $\vdash$                                         | H               |
| <b> </b> | 139<br>140               | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | ┢                                                | <del> </del>                                     | $\vdash$                                         | <del>                                     </del> | <del>                                     </del> | Н               |
|          | 141                      | -                                                |                                                  | -                                                | -                                                | <del> </del>                                     | <del>                                     </del> | $\vdash$                                         | $\vdash$                                         | H               |
| ļ        | 142                      |                                                  | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         |                                                  | Н               |
|          | 143                      | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | -                                                |                                                  | Н               |
|          | 144                      | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | -                                                | -                                                |                                                  | $\vdash$        |
|          | 145                      | -                                                |                                                  | -                                                | <del> </del>                                     | <del> </del>                                     |                                                  |                                                  | <del> </del>                                     | $\vdash \vdash$ |
| <u> </u> | 146                      | $\vdash$                                         | <del>                                     </del> | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | -                                                | $\vdash$                                         | Н               |
| -        | 147                      | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         |                                                  | $\vdash$                                         | Н               |
| <b>-</b> | 148                      | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         |                                                  | -                                                | $\vdash \vdash$ |
|          | 149                      | $\vdash$                                         | $\vdash$                                         | -                                                | $\vdash$                                         | -                                                | -                                                |                                                  | -                                                | Н               |
| -        | 150                      | 1                                                | $\vdash$                                         | $\vdash$                                         | <del>                                     </del> | -                                                | $\vdash$                                         | $\vdash$                                         | $\vdash$                                         | Н               |
|          | 1 100                    |                                                  | I                                                | 1                                                |                                                  |                                                  |                                                  |                                                  | L                                                | I               |